

FORM PTO-1390  
(REV. 7-2004)U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICEATTORNEY'S DOCKET NUMBER  
9301-211-999**TRANSMITTAL LETTER TO THE UNITED STATES  
DESIGNATED/ELECTED OFFICE (DO/EO/US)  
CONCERNING A SUBMISSION UNDER 35 U.S.C. 371**

U.S. APPLICATION NO. (if known, see 37CFR 1.5)

**10/523143**INTERNATIONAL APPLICATION NO.  
PCT/US2003/023976INTERNATIONAL FILING DATE  
August 1, 2003PRIORITY DATE CLAIMED  
August 2, 2002TITLE OF INVENTION  
COMPUTER SYSTEMS AND METHODS THAT USE CLINICAL AND EXPRESSION QUANTITATIVE TRAIT LOCI TO ASSOCIATE  
GENES WITH TRAITS

APPLICANT(S) FOR DO/EO/US

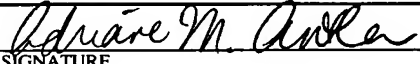
Eric E. Schadt and Stephanie A. Monks

Applicant herewith submits to the United States Designated/ Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☒ This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.
4. ☒ The U.S. has been elected (Article 31).
5. ☐ A copy of the International Application as filed (35 U.S.C. 371(c)(2)).
  - a. ☐ is attached hereto (required only if not communicated by the International Bureau).
  - b. ☐ has been communicated by the International Bureau.
  - c. ☒ is not required, as the application was filed in the United States Receiving Office (RO/US)
6. ☐ An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).
  - a. ☐ is attached hereto.
  - b. ☐ has been previously submitted under 35 U.S.C. 154(d)(4).
7. ☒ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))
  - a. ☐ are attached hereto (required only if not communicated by the International Bureau).
  - b. ☐ have been communicated by the International Bureau.
  - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
  - d. ☒ have not been made and will not be made.
8. ☐ An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. ☒ An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)) (unexecuted).
10. ☐ An English language translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

**Items 11. to 20. below concern document(s) or information included:**

11. ☐ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
12. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13. ☒ A preliminary amendment.
14. ☐ An Application Data Sheet under 37 CFR 1.76.
15. ☐ A substitute specification.
16. ☐ A power of attorney and/or change of address letter.
17. ☐ A computer-readable form of the sequence listing in accordance with PCT Rule 13ter 2 and 37 CFR 1.821- 1.825.
18. ☐ A second copy of the published International Application under 35 U.S.C. 154(d)(4).
19. ☐ A second copy of the English language translation of the International Application under 35 U.S.C. 154(d)(4).
20. ☒ Other items or information: International Publication No. WO 2004/013727 A2 dated February 12, 2004 (of PCT/US2003/023976)

US APPLICATION NO. (If known, see 37 CFR 1.5) <b>10/523143</b>		INTERNATIONAL APPLICATION NO. PCT/US2003/023976		ATTORNEY'S DOCKET NUMBER 9301-211-999	
21. The following fees are submitted:					
<b>BASIC NATIONAL FEE (37 CFR 1.492 (A) (1) - (5)):</b>					
<input checked="" type="checkbox"/> a) Basic national fee ..... <b>\$300.00</b>					
<input checked="" type="checkbox"/> b) Examination fee ..... <b>\$200.00</b>					
<input checked="" type="checkbox"/> c) Search fee ..... <b>\$500.00</b>					
<b>TOTAL OF CALCULATIONS =</b>				\$	\$1000.00
<input checked="" type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing of computer programs listing filed in electronic medium). The fee is \$250 for each additional 50 sheets of paper or fraction thereof.					
Total Sheets 209 -100	Extra Sheets 109 /50	Number of each additional 50 or fraction thereof (round up to a whole number). 3	RATE x 250.00		\$750.00
Surcharge of \$130.00 for furnishing the oath or declaration later than <input type="checkbox"/> 20 <input checked="" type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492 (e)).				\$	\$130.00
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE X		
Total Claims	55 - 20	35	x \$50.00		\$1750.00
Independent Claims	3 - 3	0	x \$200.00	=	\$0.00
<input type="checkbox"/> MULTIPLE DEPENDENT CLAIM(S) (if applicable)			+ 360.00	-	\$0.00
<b>TOTAL OF ABOVE CALCULATIONS=</b>				=	\$3630.00
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. The fees indicated above are reduced by 50%				- \$	\$0.00
<b>SUBTOTAL =</b>				\$	\$3630.00
Surcharge of \$130.00 for furnishing the English Translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(f)).					\$0.00
<b>TOTAL NATIONAL FEE</b>				=	\$3630.00
Fee for recording the enclosed assignment (37 CFR 1.21 (h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). 1 x \$40.00 per property				\$	\$0.00
<b>TOTAL FEES ENCLOSED</b>				=	\$3630.00
				<b>Amount to be refunded:</b>	
				<b>charged:</b> \$3630.00	
a. <input type="checkbox"/> A check in the amount of \$ to cover the above fees is enclosed.					
b. <input checked="" type="checkbox"/> This is an estimate of the fees due. Please charge Deposit Account No. 50-3013 to cover the required fees. A copy of this sheet is enclosed.					
c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 50-3013. A copy of this sheet is enclosed.					
<b>Note: Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137 (a) or (b)) must be filed and granted to restore the International Application to pending status.</b>					
22. <input type="checkbox"/> Other instructions					
23. <input checked="" type="checkbox"/> All correspondence for this application should be mailed to JONES DAY 20583					
24. <input checked="" type="checkbox"/> All telephone inquiries should be made to Adriane M. Antler at (212) 326-3939.					
Adriane M. Antler NAME		 SIGNATURE		32,605 REG. NO.	
				January 31, 2005 DATE	